

2017 Pinewood Derby



FRIDAY, JANUARY 20, 2017 6:30PM - 8:30PM

Practice Runs & Race Registration

SATURDAY, JANUARY 21, 2017 9:00AM - 4:00PM



Race Day

ALL RACE EVENTS WILL BE HELD AT SANDERS CORNER ELEMENTARY SCHOOL IN THE MULTIPURPOSE ROOM

Prizes awarded by Den Rank for Most Radical, Most Original, Best in Show

One Overall Scout Spirit and Cub Scout Voted Best in Show

Drawings for Prizes will be done thru out the day (You do not need to be present to win!)

Doors open at 8:45 a.m.



Opening Parade - 9:00 AM (8:45 AM Arrival)

Scout Best in Show Judging 9:00 - 9:30 AM

BEARS Race 9:30 - 10:00 AM

TIGERS Race 10:00 - 10:30 AM

WOLVES Race 10:30 - 11:00 AM

WEBELOS I Race 11:00 - 11:30 AM

Arrow Of Light Race 11:30 - 12:00 PM

LUNCH 12:00 - 12:30 PM

Lion Race 12:30 - 1:00 PM

OPEN Race 1:00 - 1:30 PM

SLOWEST Car Race 1:30 - 2:00 PM

Outlaw "Less Rules" Race 2:00 - 2:30 PM

PACK Grand Champion Finals 2:30 - 3:00 PM

2017 Pinewood Derby Awards 3:00 - 4:00 PM

& The Cubmaster "Wall Stick"

Trophies will be awarded to the 1st, 2nd, 3rd and 4th place finishers within each rank and trophies for the top overall Pack Championship winners.

Parents / siblings of Pack 1154 Cub Scouts are invited to enter the Open Race and Outlaw "Less Rules" .

Open cars must meet the same construction requirements as the Scouts'.

1st, 2nd and 3rd Place Medals will be awarded for both Open Race and Outlaw "No Rules" Races.

Once registered, the cars are held by Race Officials.

Cars are returned following elimination of the car from the competition.

An emergency repair station will be available for race participants.

Absolutely NO registrations accepted on Saturday !

NO GRAPHITE OR OTHER LUBRICANTS IN THE BUILDING !

ALL RULES WILL BE ENFORCED !

Food, Snacks, & Refreshments on sale on Race Day

Proceeds used to support Pack 1154



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Outlaw Race shall follow Rules 20, 21 and 21A. The car may not obstruct or push other cars from the track all other rules do not apply to the outlaw race.

Lion Race shall follow Rules 19, 20, 21, 21A and 22.

All Cub Scouts and open race entries to meet all rules noted in this document.

PACK 1154 PINEWOOD DERBY RULES AND PROCEDURES

NOTE: These rules are subject to change, at the discretion of the Derby Chairman. Consultation with the race committee will guide judgment. If a substantial change is to be made, it will be posted before race time.



I. THE PINEWOOD DERBY AND SPORTSMANSHIP

The Pinewood Derby is perhaps the highlight of a Cub Scout's year because of its fun and excitement. It is a time for a parent (or guardian) and son to work together in a hands-on project that builds skills and character. The craft skills come from learning to work with wood, planning a design, and creating a unique derby car. The character development comes from learning about sportsmanship. The Pinewood Derby Committee *STRONGLY SUGGESTS* that each parent emphasize this idea with your son.

Sportsmanship is how we act and behave in preparing for and participating in group activities like the Pinewood Derby. There are four themes our pack would like to emphasize regarding sportsmanship.

1. Everyone's skills are a little different. You may be good at something like singing or drawing, but not as good at something else like basketball or computers. Parents have different skill levels, too. This doesn't mean that you are a good person one time and not good another time. You can always be a good person, whether or not you have good car-building skills. Remember, you and your friends are individuals first and racers second. This idea is often called having respect for others.
2. Follow the rules. Without rules, there would be no Pinewood Derby. You will never know if you are really good at doing something unless you follow the rules. This is often called being honest.
3. There are winners and losers in every competition. You accept this when you choose to compete. There may be times when you win and feel happy, and times when you lose and feel unhappy. Being a winner is easy, and losing is sometimes hard. If you win, you must not brag or gloat. If you lose, you must not feel jealous or bitter. To be a good sportsman, you must be able to say, "I did my best" and be satisfied with the results. You must also be able to appreciate and feel happy for someone else when they run a good race or build a neat car.
4. The scout should do as much work on the car as he is able to do. The fun of the derby is for the Scout to make his own car and watch it race. Adults should work with the Scout and make the car as a project together, allowing the Scout to lead with his own creative ability. The use of kits, finished parts, and purchased cars undermines the spirit of good sportsmanship, i.e. the Scout takes credit for work done by someone else. Adults should always supervise the use of any power tools (drills, saws, sanders, etc.) but let the Scout get as much fun and experience out of building the car as possible.

II. DERBY RULES

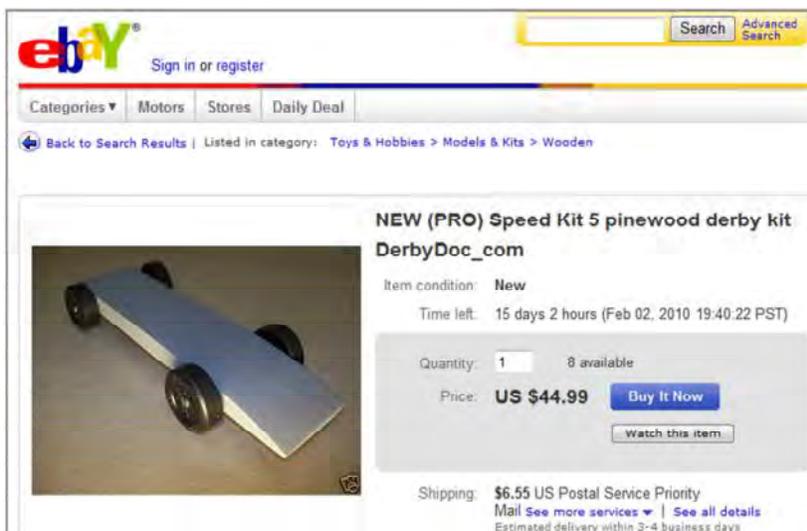
1. All registered Pack 1154 Scouts may enter cars in their rank-appropriate event. Only current Pack 1154 parents and siblings may enter cars for the “Open Race” event. (Note that we are narrowing the pool of entrants for the open race from previous years.) The rules in this booklet apply to both competition and open race cars.

2. All cars entered must be constructed from the "Official Grand Prix Pinewood Derby Kit" (referred to below as “the kit”) as distributed by the pack. “Precut” kit cars will NOT be allowed in any category. Other pre-made cars, e-Bay purchased cars or car kits, etc., are strictly prohibited and *MAY NOT BE USED*. Additional kits may be purchased from an official Scout Service Center if they are of the exact type manufactured by the BSA as specified above. BSA colored wheels as noted in rule 26 may be used.

Example 1. Pre-cut and/or non-BSA kits may NOT be used.



Example 2. E-Bay cars and kits may NOT be used.



3. Cars must have been built since the conclusion of the previous year's derby. No parts from previous derby cars may be used except for weights. "Weight" is considered to be any material on the car that is not provided in the kit. Re-entries from prior year races are NOT allowed.
4. Registered Pack 1154 scouts compete by rank: Tiger, Wolf, Bear, Webelos I, and Arrow Of Light. The top 4 finishers in each rank advance to the Championship Race. Lions will race Lego cars.
5. Each car must pass a technical inspection before it is formally registered for competition.
6. The Inspection Committee has the authority to disqualify any car that does not conform to the rules as described in this booklet. Cars that fail the initial inspection may be taken home for modifications or modified at the worktables available at registration. Early registration is encouraged to allow time for any adjustments required due to a failed inspection.
7. Registration and inspection are from 6:30 to 8:30 pm the evening prior to Race Day. Registrations will NOT be accepted on the day of the derby. Once registration is closed, no additional entries will be admitted.
8. The Cub Scout must be present at inspection and registration. If the car fails inspection, the Scout will be told the reasons why and will be sent to the Pit Area to work on his car. If the Scout is not present, no adjustments can be made to the car and the car will not be registered.
9. The official weight will be determined by the use of scales provided by the Pack Pinewood Derby Committee. *The weight shown on this scale is final.* At the time of final weigh-in, all car parts and materials must be firmly attached to the car. If the car is over or under the weight limit, weight can be removed or added by the Scout at the Pit Area until registration closes.
10. Once a car has been registered, its qualification may not be questioned.
11. The Cub Scout is not required to be present during the race. Please note, if during the race the car malfunctions and requires adjustments of any kind, ONLY the scout himself (with parental assistance) is allowed to make the repair/adjustment. This means if the scout is not present his car will be disqualified from the event.
12. A scout may enter only one car.
13. No car may be altered (to include the addition of lubricants) in any way after it has been registered. The Pinewood Derby Race Committee will store it until race day.
14. With the following exceptions, cars are returned only after the specific rank competition.
 - 14A. The top 4 winners in each rank compete in the championship race event and their cars will be returned at the championship awards ceremony.
 - 14B. Cars that have won a "Best of..." award will be returned at the awards ceremony.

15. Interpretation of the rules described in this booklet are at the sole discretion of the Derby Committee and independent inspectors.

16. On Race Day, the Cub Scout must make all questions regarding rules interpretations and procedures to the Pinewood Derby Chairman or Race Officials prior to the start of the next race.

17. Decisions of Race Officials on questions of rules interpretations and procedure may be appealed to the Pinewood Derby Chairman. All decisions of the Pinewood Derby Chairman are final. Decisions of Race Officials on questions of fact (i.e. the result of a specific race) may not be appealed beyond the Trackmaster and/or Finish Line Judges.

18. Unsportsmanlike conduct by any participant or spectator will be grounds for expulsion from the competition and/or the race area.

III. RACE CAR DESIGN STANDARDS

19. Materials from the kit may be supplemented but not replaced. Lego kits shall use provided parts.

20. Maximum height shall not exceed 6", open race and Scout race. Outlaw and Lion 12" maximum.

21. Race cars may be no longer than 7 inches, nor wider than 2-3/4 (2.75) inches, as determined by the official gauges during the Registration and Inspection. All cars to meet this requirement.

21A. The car must clear the lane guide on the racetrack. Underside clearance of at least 3/8 (0.375) inches and inside wheel-to-wheel clearance of at least 1-3/4 (1.75) inches is recommended. (Note: This is the original width of the car body.) Adequate clearance is the responsibility of the race car builder. All cars to meet this requirement.

22. Race cars may weigh no more than five (5) ounces (total weight) as determined on the official scales during the pre-race check-in. All cars to meet this requirement except Outlaw.

23. Weight will be considered part of the car for purposes of all measurements. All weight must be securely fastened to the car by permanent glue, nails or screws, but not by "sticky substances" such as tape or tack spray. Weights shall be passive (non-moveable, non-magnetic, non-electric, non-sticky, etc). No liquids or loose materials of any kind are permitted in or on the car.

24. The precut slots in the wood block provided will be used for the placement of the wheels. Only if these precuts are not straight may they be filled and re-cut. However, the positioning of these slots may not change more than 1/4"; the original wheelbase (distance between the front and rear axles, center to center) must not change; and the distance between the front axle and the front of the car shall not be modified. If a wheelbase is questioned, the inspection committee will use a comparison wood block from an Official BSA Pinewood Derby Kit to make a final determination as to whether the wheelbase is acceptable.

25. The front of the car must have a minimum of a ¼” flat surface in the center to be placed against the starting mechanism. The distance between the front axle and the front of the car shall not be modified, i.e. it cannot have a cutout notch. No part of the car may extend beyond the starting mechanism of the racetrack.

25A. Cars with pointed noses narrower than ¼”, like the one pictured below, are difficult to stage and may not trip the electronic finish line at the point of crossing. This may result in a disadvantage to the racer.

Example 3. Noses must be at least ¼’ wide in the horizontal axis.



25B. Indented noses are prohibited. Cars like the one pictured below will "stage" further down the track, and thus are not traversing the same course as other cars.

Example 4. Indented noses and cutout notches are NOT allowed.



26. The car shall roll on the wheels provided in the official BSA car kit or in an official BSA replacement wheel and axle kit, e.g. the new multi-colored Official BSA Pinewood Derby wheels. Similar non-BSA wheels may be on the market available for purchase, such as the black spoked wheels that are available from PineCar, but they are not allowed.

Example 5. Only official BSA wheels are allowed.



Example 6. Wheels not from the official BSA kit are NOT allowed.



27. All cars must have four wheels; at least three need to simultaneously touch the track surface. All four wheels must be able to come into direct contact with the body of the car.

28. Removal of ANY material from the wheel sidewalls, tread, or face, whether on the inside or outside, is not allowed. Wheel treatment (hub and tread smoothing and polishing) may not result in substantial removal of mass or in narrowing the wheel width. The original "tread marks" on the wheel face and the "BSA" and "Pinewood Derby" words on the sidewall must remain intact, i.e. apparent to the inspector. There are two exceptions to this:

28A. Wheels may be lightly sanded to remove the mold mark on the tread.

28B. Truing the wheels round by sanding or lathing is allowed.

29. The wheels may not be cut, drilled, beveled or narrowed. The wheel tread (the flat surface of the wheel) may not be rounded or otherwise shaped (convex or concave sanding/shaping).

30. "U" or "H" or "V" grooving of the wheel tread is not allowed.

31. The portion of the wheel surface that contacts the track must remain parallel to the axle. Axles must be straight and set to allow the wheel treads to be flat on the track.

Example 7. Wheels must be flat on the track surface.



32. The axles may be straightened and removal of the imperfections, such as pinch marks and mold ridges, by filing, sanding or polishing, is allowed. Machined axles with cut grooves, slots or other similar modifications are not permitted.

Example 8. Axles



Official BSA axles that have been polished are allowed.



Non-BSA axles are not allowed.



Machined axles are not allowed.

33. The axle nails must be firmly affixed to the wood of the car body and must be placed in the original "axle grooves" in the supplied wooden block, with exceptions as noted in rule 24.
34. The axles must be visible to the inspection committee. It must be obvious to the inspection committee that the grooves, wheels, and the nails from the kit are being used.
35. Wheels and axles which have been modified by someone other than the Scout and his parent/guardian are prohibited, even if they are from the official kit.
36. Metal frames, metal axle supports, and single axles supporting two wheels are prohibited.
37. The use of bearings, bushings, hubcaps, inserts, sleeves, and/or washers is prohibited.
38. The car may not ride on any type of spring or suspension.
39. The race car may not be constructed or treated in such a way that the track's starting mechanism imparts momentum to the car. This provision disqualifies cars with sticky substances on the front of the car and protrusions that may catch on the starting pin. The car must be freewheeling with no starting devices to push or enhance its travel down the track.
40. Only dry lubricants such as graphite or powdered Teflon "white lube" will be allowed for lubricating the wheels. Do not use other lubricants such as oils or silicone sprays. These can cause the wheels on the car to deteriorate, collect dust, and can cause damage to or alter the track. No hubcaps or coverings of any kind may be placed on the wheels to hold additional lubricant.
41. No lubricant is allowed inside any Sanders Corner room or building.

IV. CONDUCT OF THE RACES

42. Competition will consist of heat races within each rank. A series of final heats are run for the Pack Championship race event. Each car will race multiple times. The cars will race in all of the lanes of the track to eliminate any lane advantage or in accordance with the race software.
43. The car with the lowest average score as determined by the race software will be declared the winner. In case of a tie, one additional race will be run with only the affected cars racing.
44. Track officials are responsible for the proper conduct of the races.
45. The “Starter Team” will stage cars on the tracks.
46. The race management software determines the lane assignments.
47. If, during a race, a car leaves its lane or leaves the track the race will be re-run.
 - 47A. If the same car again leaves its lane or the track without interference to another car, it will be judged last place and the race will not be re-run again.
 - 47B. If the same car again leaves its lane or the track with interference to another car, it will be judged last place and the race will be re-run without that car.
 - 47C. If a track fault is found which may have disadvantaged a car, the Trackmaster may order the race heat to be re-run after the track is repaired.
48. If, during the race, a car sustains damage that affects its ability to race, then the Scout may perform repairs with assistance from his parent/guardian or Pit Crewmember. The Scout is allowed to repair only the damage incurred during that race. No other modifications or adjustments to the car are allowed. The car must be re-inspected before racing again.
49. If during a race heat no car reaches the finish line on the track, the car which went the farthest in its lane shall be declared as the heat winner.
50. The race management software determines race order.
51. Only race officials may enter the track area. This rule will be strictly enforced.
52. Only activity representatives are allowed inside the track area.
53. All cars will be judged by rank for “Most Radical,” “Most Original,” “Best Design,” and “Best in Show.” If two cars are thought to be equally “best” and only one car has a scouting theme, that car will receive the award.

54. We are guests at the Sanders Corner Elementary School and expect all Scouts and family members to behave themselves properly. All Loudoun County School rules and regulations apply while on school property.

54A. Do not go under the bleachers.

54B. Please stay off the stage.

54C. No food or drinks are allowed in the gym. The school cafeteria will be available for your use during lunch and when you are not racing.

54D. The Pack is responsible for any damages so we ask that all parents please supervise their children

55. Scout “drop offs” during race day are in accordance with BSA rules, i.e. Tiger Scouts must be with their parent/guardian. Other elementary-age children must have adult supervision and cannot be “dropped off.”